NOTES ON SOME CAPE SPECIES OF ANNESORHIZA.

By R. S. Adamson.

The genus *Annesorhiza* was founded by Chamisso and Schlectendahl (Linnaea I. 398, 1826) who included in it a single species *A. capensis* of which the leaves were not known. In 1837 Ecklon and Zeyher (Enum. 344-5) added six new species while including *A. capensis* Ch. & Schl. in their list. In elaborating the genus for the Flora Capensis (II. 545, 1862) Sonder retained these seven species and added one more. In later times four further species have been added but these, though they extend the range of the genus to the Transvaal, do not occur in the extreme South-western Cape and are not further considered. Examination of material in the field and in herbaria shows that the original eight require some rearrangement.

A. capensis Ch. & Schl. was fully described (l.c. 399) though without leaves. Sonder (Fl. Cap. II, 545) described the leaves as " . . . *lobes spreading lanceolate subulate* " ; a description which is not justified by the specimens in his herbarium which have been examined. The species is there represented by three sheets not one of which has a complete leaf. One specimen has a petiole with indications at its top of a trifid division and is glabrous. The others are leafless. In each case the base of the stem is enclosed in a ring of fibres derived from old leaves. These sheets are marked "*A. capensis* Cham. & Schlecht." in Sonder's handwriting. It seems either that Sonder was describing material other than that in his herbarium or that his description is inaccurate. No recent collections attributed to this species have been seen which possess any leaves.

Ecklon and Zeyher's species *A. montana* is a well characterised plant fully represented in collections. In Sonder's herbarium are specimens collected by Ecklon and Zeyher and by Drège. These plants and others in various herbaria are quite indistinguishable from Ecklon and Zeyher's specimens of *A. capensis* Ch. & Schl. Further as far as can be seen the latter had glabrous leaves and specimens of *A. montana* E. & Z. show stem bases surrounded by fibres. Indeed there seem no characters by which the two species can be separated. The difference in fruit size made use of by Sonder is not a valid one : the fruits in two specimens of *A. capensis* in Sonder's herbarium measured 5·5 × 3 mm. and 7·5 × 2·5 mm. In *A. montana,* which is said to have larger fruits, a number of measurements gave as extremes 4 × 2 and 8 × 3 mm. with an average of 4·5 × 2·5 mm. Taking all the facts together it would appear that the two names really apply to the same plant which should be called *A. capensis* Ch. & Schl. It should be added that the original type-specimen of *A. capensis* collected by Bergius has not been seen. *A. capensis* is perennial.

Of the other species *A. hirsuta* E. & Z. is a distinct and easily recognisable plant. It is a stouter and taller plant than *A. capensis* Ch. & Schl. with hairy leaves, few or no fibres at ground level, terminal umbels with 2—4 most commonly 3, long and stout rays. *A. capensis* has 3—7 slender and shorter rays to the umbel. The involucral bracts in *A. hirsuta* have white margins and the fruit is larger, 7 × 3 mm.

A. elata E. & Z. is a closely allied plant which is not represented in any recent collections. In Sonder's herbarium are three sheets, two of Ecklon and Zeyher and one by Wallich and Hartman. All are leafless. The specimens are much like *A. hirsuta* and only differ in being more slender and in having 4—5 rays in the primary umbel. *A. elata* seems certainly not really separate from *A. hirsuta* and should be sunk in that species.

As additional support for the reduction to two species, *A. capensis* Ch. & Schl. and *A. hirsuta* E. & Z., instead of four, examination of the material variously named in Sonder's collection, in the herbaria at Kew, British Museum, S. African Museum, University of Cape Town and the Bolus Herbarium, shows a clear separation of two species and two only.

A. macrocarpa E. & Z. is readily distinguished from either of the foregoing by its glabrous leaves with small crisped parsley-like segments, umbels with 6 or more rays, and larger fruits with more pronounced wings on the ridges. The closely allied *A. spuria* E. & Z. differs in being taller and more robust, in much more numerous umbel rays and larger fruits. Sonder, while including it, treated *A. spuria* as a doubtful species. Till recently when the plant was rediscovered at Camps Bay this species was only known from Ecklon and Zeyher's specimen collected at Doornhoogde. The original plant was leafless but the Camps Bay plant which is otherwise identical with Ecklon and Zeyher's has leaves that exactly match those of *A. macrocarpa* E. & Z. The leaves in this species wither away completely before the maturation of the flowers.

Apart from size the chief character of *A. spuria* is the many rayed umbel: Ecklon and Zeyher's plant has 24 rays, the Camps Bay one 21, whereas specimens of *A. macrocarpa* range from 6—15. Some of the plants of the latter have fruits as large as those of the typical *A. spuria* (e.g. Burchell 4790 in Herb. Kew). A careful examination of all the

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available material and more especially of the collections of Ecklon and Zeyher suggests very strongly that *A. spuria* is merely a very strong vigorous state of *A. macrocarpa* E. & Z. and is not really separate. The name *A. macrocarpa* E. & Z. is retained for the united species because it is fully described and was taken up by Sonder whereas the original description of *A. spuria* is short and incomplete.

Of the remaining species very little is known. *A. villosa* Sonder is represented by a specimen collected by Drège at Ezelbank. This has the general habit of *A. capensis* but has densely hairy leaves. *A. filicaulis* E. & Z. is represented in Sonder's herbarium by a single leafless incomplete specimen collected at Clanwilliam. It has some almost mature fruits which suggest that the plant may be a *Peucedanum.*

The eight species in Flora Capensis thus reduce to four with well differentiated characters. *A. capensis* Ch. & Schl., *A. hirsuta* E. & Z. and *A. macrocarpa* E. & Z. occur on the Cape Peninsula.

In conclusion I have to thank Mr. C. Norman for his help and criticism during the course of this work. I also desire to thank the Keeper of Botany, British Museum, who obtained for examination the material in Sonder's herbarium, and the Director of the Botanical Museum, Stockholm, for the loan of those sheets.

NOTE.—The generally accepted spelling *Annesorhiza* has been adopted though *Anesorrhiza* might seem more correct. The name is a latinisation of "Anys Wortel" (Anise Root) which was the old vernacular name applied to the plants.